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**PATENT APPLICATION  
DOCKET NO. P0321**

**MEDICATION VIAL ANTI-TIPPING**

**INVENTOR:**

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## **MEDICATION VIAL ANTI-TIPPING**

### FIELD OF THE INVENTION

The present invention relates generally to devices for increasing the stability of containers for medications.

### BACKGROUND OF THE INVENTION

The number of pharmaceuticals available to treat or prevent diseases and  
5 undesirable medical conditions increases dramatically with the passage of time.  
It is not uncommon for individuals to undertake courses of treatment in which  
several medications are to be administered simultaneously. Sorting through  
multiple vials in a medicine cabinet can be a difficult task, resulting in the tipping  
and spillage of the contents. Further, individuals on multiple medications are apt  
10 to be weakened by their conditions, or elderly, and can have physical  
manifestations that reduce the ability to grasp a medicine container without  
tipping either the container itself or surrounding containers. Many medications  
are extremely expensive. Thus, the loss of even a few tablets due to spillage can  
place a serious burden on the patient.

15 Although the art provides no viable solution to the problem of medical vial  
instability, anti-tipping devices are known in other, unrelated contexts. For  
example, U.S. Patent No. 2,990,080 to Harris is directed to an inverted bottle  
support having a bottle stopper and support base composed of composed of two  
separate components of a stopper and a base.

U.S. Patent No. 2,908,473 to Snyder deals with a bottle support adapted for slipping on bottles and providing a base for the bottle so that when it rests upon a suitable supporting object, the movement of the bottle on the supporting object and the tilting relatively thereto will be resisted.

5 U.S. Patent No. 2,589,967 to Sawyer shows a drinking cup for babies and young children, the cup having a base with a dish-like structure having a central upstanding annular flange defining a circular recess having a slight taper so as to receive the lower end of the cup member in a slight press-fit.

Other designs can be seen in U.S. Design Patent No. D331,792 to  
10 Wilcox, U.S. Design Patent No. D457,782 to Snell, and U.S. Design Patent No. D474,404 to Tropeano.

It can thus be seen from the foregoing that the need exists for a simple, inexpensive apparatus to decrease the likelihood of tipping of medicament containers.

15 SUMMARY OF THE INVENTION

An anti-tip device for medicament vials having a top and a bottom. The anti-tip device includes a base member adapted and constructed to be selectively secured to the bottom of the vial. The base member has a shape whereby the base extends outwardly from the vial when the base member is secured to the bottom of the vial.

## DESCRIPTION OF THE DRAWINGS

Figure 1 illustrates a medicament vial and base member in accordance with the principles of the present invention.

Figure 2 illustrates a schematic sectional view of taken generally along lines III-III of FIG. 1.

Figure 3 illustrates a schematic sectional view of another embodiment of a base member in accordance with the principles of the present invention.

Fig. 4 illustrates a schematic plan view of another embodiment of a base member in accordance with the principles of the present invention.

## DETAILED DESCRIPTION OF THE INVENTION

FIG. 1 illustrates a medicament vial 10 and a base member 12 in accordance with the principles of the present invention. The vial 10 has a top T and a bottom B. When the vial V is full of medication, such as pills P (FIGS. 2-3), the proportions of the vial render it relatively top-heavy, and thus prone to tipping unexpectedly.

The base 12 is secured to the bottom B of the vial 10, for example, via a press-fit, and extends outwardly from the vial 10. The proportions of the base 10 are such that it extends outwardly to a sufficient degree to decrease the likelihood of tipping of the vial 10. In the illustrated example, the medicament vial 10 is generally cylindrical, and the base member 12 is generally annular. The outer diameter of the medicament vial 10 is less than the outer diameter of the base member 12.

As can be seen in FIG. 2, the base member 12 has a generally angular cross-sectional outer contour, with a horizontal top surface 14, angled front surface 16, and vertical face 18. The precise dimensions of the base member 12 should be selected to maximize the stabilizing qualities of the base member. One particularly advantageous embodiment includes a base member configured to extend outwardly from the vial surface approximately  $5/16$  inches, with a top surface of approximately  $1/16$  inches and a front face of approximately  $3/64$  inches.

FIG. 3 illustrates a base member 20 having a generally rounded cross-sectional outer contour 22.

FIG. 4 illustrates a base member 24 having a front face 26 and an outer periphery 28. A series of circumferential indents 30 are formed on the outer periphery 28 of the base member 24. The indents 30 reduce the amount of material in the base member 24, and provide grip surfaces to enhance the ease of handling of the base member 24 when secured to a vial. It has been found that indents approximately  $1/4$ " wide, extending approximately  $1/16$ " into the front surface of the base member, and spaced approximately  $3/16$ " apart, provide particular advantage.

Indicia 32 can be provided on the front face 26 of the base member 24. The indicia can be formed integrally with the base member, or can be painted or printed onto the base member. The indicia 32 can take the form of decoration, advertising, instructions, labeling, or any graphic form.

The base members of the present invention can be formed in any suitable manner. The illustrated embodiments can be formed in a unitary piece, for

example, by casting or molding from any suitable material. Suitable materials include elastomeric materials such as HDPE, LDPE, polystyrene, and rubber.

Although the present invention has been described with reference to specific embodiments, those of skill in the art will recognize that changes may be made thereto without departing from the scope and spirit of the invention as defined by the appended claims.